

**FOR RECOMMENDATION**

**PUBLIC**

**OPEN SESSION**

**TO:** University Affairs Board

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**PRESENTER:** David Kim, Warden of Hart House  
**CONTACT INFO:**

**DATE:** May 21, 2024 for May 24, 2024

**AGENDA ITEM:** 4

**ITEM IDENTIFICATION:**

**Capital Project: Report of the Project Planning Committee for the Hart House Infrastructure Renewal Stage 1 – Total Project Scope and Sources of Funding**

**JURISDICTION INFORMATION:**

Pursuant to section 5.7 Capital Projects, of the Board’s terms of Reference, “the Board considers capital projects on the St. George campus within its areas of responsibility, advises Governing Council on their implications, and concurs with the recommendations for approval of the Academic Board. It also considers capital projects on any campus with University-wide implications.”

The *Policy on Capital Planning and Capital Projects* provides that “student residences and other student-oriented Capital Projects (“Non-Academic Projects”) will require additional oversight by the University Affairs Board.” Following consideration and approval by the Academic Board and Business Board, such proposals are then brought forward to the Executive Committee, and then forwarded to the Governing Council.

The “Policy on Capital Planning and Capital Projects” provides that capital projects with costs between \$10 million and \$50 million (Approval Level 2) on the St. George campus, will first be considered by the Planning & Budget Committee, which shall recommend approval to Academic Board. Such projects will be confirmed by the Executive Committee of the Governing Council on the recommendation of the Academic Board [Section 3(b)(ii)(1)(a)]. The Policy further states that “any financing will be approved by the Business Board”. [Section 3(c)].

**GOVERNANCE PATH:**

**A. Project Planning Report, Total Project Cost, and Sources of Funding**

1. Planning and Budget [for recommendation] (May 9, 2024)
2. Academic Board [for approval] (May 23, 2024)
3. **University Affairs Board [for concurrence with the recommendation of the Academic Board] (May 29, 2024)**

4. Business Board [for approval] (June 19, 2024)
5. Executive Committee [for confirmation] (June 18, 2024)

**B. Execution of the Project:**

1. Business Board [for approval] (June 19, 2024)

**PREVIOUS ACTION TAKEN:**

No previous action in governance.

**HIGHLIGHTS:**

**Previous Administrative Actions**

At the August 24<sup>th</sup>, 2019 meeting of the Capital Project and Space Allocation (CaPS) Executive Committee, the Hart House Infrastructure Renewal project was brought forward to approve the Terms of Reference, and to formally strike the Project Planning Committee.

At the April 12, 2019 Capital Project and Space Allocation Committee (CaPS) Executive Committee, the request to proceed with a Request for Proposal (RFP) to select a consultant team and for the expenditure of funds to engage consultants was conditionally approved. At that meeting, the CaPS Executive Committee asked that the scope of consultant work be limited to schematic design and the request for consultant fees be adjusted accordingly. A strategy to tailor the overall scope of work to Hart Houses' ability to fund the project was also requested.

At the June 3<sup>rd</sup>, 2019 the Capital Project and Space Allocation (CaPS) Executive Committee was provided an update that the consultants would be limited to Schematic Design as requested. The Capital Project and Space Allocation (CaPS) Executive Committee approved the revised consultant fees to engage consultants for Schematic Design.

At the November 19<sup>th</sup>, 2019 meeting of the Capital Project and Space Allocation (CaPS) Executive Committee, an increase to consultant fees was approved to engage the preferred consultants to initiate design services to the end of Schematic Design.

At the March 4<sup>th</sup>, 2022 meeting of the Capital Project and Space Allocation (CaPS) Executive Committee, an increase to consultant fees was approved to engage consultants to revise Schematic Design, initiate Design Development to the end of construction services for Stage 1 work, initiate services for a planning consultant, and to initiate construction management services.

**Project Plan**

The Hart House Infrastructure Renewal project envisions renovating Hart House to renew its infrastructure and ensure its future as a key part of the St. George Campus. Hart House is essential to the University of Toronto experience. It is an architectural jewel on the St. George campus, notable City of Toronto designated Heritage building, the largest student center on all three campuses, and one of the University's premier co-curricular learning centers. Hart House is located at 7 Hart House Circle adjacent to Queens Park Cres W. It was originally constructed between 1911-1919, and officially presented to the University on November 11<sup>th</sup>, 1919. It is located adjacent to Queens Park Cres W to the east, Wycliffe College to the north, and Hart House Circle, Back Campus Fields, and Stewart Observatory to the west and south. Hart House celebrated 100 years as a student center as of November 2019.

The Hart House Infrastructure Project Planning Committee (PPC) was struck in 2018 in response to a series of studies from 2016 to 2018 that brought focus to Hart House's aging and failing infrastructure. It was identified that Hart House can no longer operate successfully without significant capital renewal.

The Hart House Infrastructure Renewal Project vision is centered around sustainability, resilience and inclusivity. The main objective is to ensure the future success of the building through not only an infrastructure renewal, but also to improve Hart House's commitment to accessibility and contributions to promoting a sustainable environment. Protecting the Hart House brand, protecting the services delivered to students and Hart House's campus partners, and protecting the current funding model are important goals for this project.

Due to the overwhelming costs associated with the infrastructure renewal and accessibility objectives discussed during the PPC process, it was chosen to only implement the most critical project priorities as part of this project, which include life safety, heritage asset preservation, components of accessibility improvements and aspects of sustainability, and take a phased approach to the project.

To minimize disruption to the function of the House, the project is proposed to be delivered via a phased approach with approximately 6 phases. The planned approach is to build new mechanical and electrical rooms and a new duct bank as a shell condition to set up for the next phase of installing the new mechanical and electrical system at the House in parallel to the existing systems. Future phases will then include switching over to the new system through local improvements. Additional phases (Phase 1 to 6) will be scheduled in the future over a minimum of 10 years subject to available funding. Currently Hart House is seeking approval for the construction of Stage 1. The completion of this work is critical for the future phases to be possible.

The Hart House Infrastructure Renewal project was reviewed at the University's Design Review Committee (DRC) in November 2023. The DRC membership supports the design of the project, specifically the focus on sustainability, and conserving the heritage character of the building. The project was presented to the University of Toronto Community Liaison Committee (CLC) in January 2024. Project consultation with student representatives included Project Planning Committee meetings and breakout consultation sessions during the planning phase. During implementation, Hart House representatives have held consultation meetings with both neighboring Wycliffe College, and students and staff involved in the Kahontake Kitikan Garden to keep them updated, answer any questions and receive feedback on the current design.

The existing building is a total of 10,246 nasm within a gross area of 19,118 gsm. Stage 1 construction proposes approximately 577 gsm of new construction and 1,854 gsm of renovated existing space. It is estimated that the future complete project will propose a total of 9,833 nasm provided within a total gross area of 19,695 gsm. The project has completed Schematic Design for all project phases (1-6), and Design Development, Stage 1. Stage 1 100% Construction Drawings will be completed in Mid-April. The planning consultant, Brook McIlroy, contacted the City in February 2023 to apply for a Zoning Applicable Law Certificate, it was confirmed that a Site Plan Application (SPA) will not be required for this project. The heritage consultant (and prime architect) EVOQ presented the project to Heritage Planning at the City in March 2024. The City supported the approach to submit an HIA for each stage of work for Heritage Permit approval. Assuming timely review and approvals, the project is scheduled to start Stage 1 Pre-Construction Services under Construction Management delivery in July 2024. Future phases will be scheduled at a later date.

The Hart House Infrastructure Renewal Project aims to save Hart House by implementing the following total scope of work:

- Meeting sustainability targets; including sizing and planning for equipment to be compatible with future campus nodal plant;
- Replacing mechanical systems that have reached their expected lifespan;

- Replacing inefficient steam heating systems with low temperature hot water ones;
- Upgrading domestic hot and cold water, and related venting;
- Providing new mechanical ventilation and air conditioning for the whole building;
- Replacing the branch wiring within the building providing additional outlets to serve modern requirements;
- Completing select roof repairs; and
- Improving inclusivity and accessibility of the Fitness Centre, Gallery Grills, and other Key Spaces.
- The scope does not include window replacement, the enclosure of the Quad, or the inclusion of Photovoltaics.

To allow for the future phases of work, it is critical that Stage 1 moves forward. Stage 1 includes, but is not limited to the following prioritized scope:

- The construction of a new, excavated underground addition to the east of the building, to be used as a new mechanical room, chiller room, and electrical room in the next phase;
- A new buried electrical duct bank along the north elevation; and
- Landscape work on the north and east to accommodate the new duct bank, and mechanical and electrical rooms.

The project delivery method for Stage 1 is Construction Management. Input from the Construction manager is intended to mitigate some cost and schedule risks.

## **Landscape**

In Stage 1 the landscape and site scope of work supports the mechanical and electrical infrastructure upgrades. This will include rehabilitation of the landscape along the north elevation of the building due to the new duct bank; existing trees will be protected where possible, new planting, and new accessible walkway to be installed. An exemption to the University's Facilities & Services standards has been provided for the new duct bank to be above grade (to be encased in concrete under a sloped walkway), rather than buried below grade as typically required to help protect the roots of significant existing trees. The landscape along the east elevation of the building will be reconfigured to suit the new below grade mechanical and electrical spaces including new plantings, replacement trees, new walkway access, and provision for reinstatement of Kahontake Kitikan Garden (planting by others). There are 10 by-law protected trees to be removed, 7 by-law protected trees to be retained, and 10 new trees to be planted.

## **Sustainability**

The University of Toronto is committed to reducing its scope 1 and 2 greenhouse gas (GHG) emissions by at least 37% below its 1990 level of 116,959 tonnes eCO<sub>2</sub> by 2030, targeting a climate positive operating model by 2050. The Hart House Infrastructure Renewal Project was initiated prior to the introduction of the Tri-Campus Energy Modelling & Utility Performance Standard, and the requirement of a Project Charter. With consultation with Facilities & Services, the energy saving targets initially recommended in a study by BSN, *Green Heritage Renewal Study (2014 Energy Report)* were adopted and adjusted to account for the changes in the project scope. These adjustments were reviewed and approved by Facilities & Services – resulting in the 1,648,000 ekWh energy savings goal. The project has completed 100% SD for the full project scope, and 75% CD for Stage 1. The consultants have provided an Energy Modelling Report which outlines how the full project (all stages/phases) will meet energy targets. The final energy model predicts an overall annual savings of 3,234,652 ekWh compared to 2019 data, considerably more than the target set. The energy model report is to be updated at each project phase to reflect changes to the design.

The proposed mechanical and electrical upgrades will include measures to minimize energy

consumption and promote sustainability. The primary energy conservation measures include (for the full project scope):

- Changing the pool dehumidification system from 100% outside air to a recycling heat recovery system.
- A water-cooled heat recovery chiller will provide cooling to the building while recovering waste heat back into the primary hot water loop.
- Converting the aging steam system to a low hot water temperature system with fully automated local controls. Additional energy savings of the automated control system includes outside air control to occupancy or CO2 measurements, stop/start control to occupancy, zone temperature control. The new systems are planned to be compatible with connecting to a future low temperature campus heating system.
- New air conditioning and outdoor air ventilation systems that include energy saving features that exceed ASHRAE 90.1 standards including;
  - Variable speed drives for all fan and pumping systems controlled to load demand;
  - Heat recovery on exhaust air and CO2/occupancy control on dedicated outdoor air systems;
  - EC motors on fan coils; and
  - Low pressure drop air handling units Interactive controls.

Key Performance Indicator	2019	Proposed by Complete Project (Full project scope)
TEUI (Total Energy Use Intensity)	519.3	327.7
GHGI (Greenhouse Gas emissions Intensity)	75.3	37.0
TEDI-heating/cooling (Thermal Energy Demand Intensity)	309	117.8

It is important to note that these are the anticipated targets once all phases of work are complete (or the full project scope). Stage 1 work will have minimal impact as it is an enabling phase for future phases to be implemented.

**Schedule**

The proposed schedule for the project is as follows:

- Terms of Reference to CaPS Executive August 24, 2018
- CaPS Executive Approval for Consulting Fees April 12, 2019
- Consultant RFP Issued June 18, 2019
- Consultant Selection and Letter of Award November 19, 2019
- Schematic Design All Phases December 2019 – September 2021
- Schematic Re-Design September 2021 – July 2022
- Design Development Stage 1 - 100% July 2023
- CM Services RFP Issued August 30, 2023
- CM Services Selection and Letter of Award January 9, 2024
- CM Preconstruction Services January 2023 – May 30, 2024
- CaPS Executive Approval for Full Project Cost (Stage 1) Cycle 6 April 2024 – June 2024
- Construction Documents Stage 1 - 100% April 2024
- Sequential Tendering May 2024 – June 2024
- Construction Period Stage 1 (12 months) July 2024 – July 2025

This schedule assumes all municipal approvals can be achieved within this timeline.

**FINANCIAL IMPLICATIONS:**

Discussion of overall costs and sources of funds can be found in the “In Camera” document for this project.

**RECOMMENDATIONS:**

Be It Recommended

THAT the University Affairs Board concur with the prospective recommendation of the Academic Board,

THAT the Stage 1 project scope of the Hart House Infrastructure Renewal as identified in the “Report of the Project Planning Committee for University of Toronto Hart House Infrastructure Renewal”, dated April 5, 2024 be approved in principle; and,

THAT the project totaling approximately new 577 gross square metres (gsm), and 1,854 gross square metres (gsm) renovated space, be approved in principle, to be funded by Hart House Capital Reserves, Hart House Reserves, Hart House Future Ancillary Funds, Fundraising Received, Provostial Funds, and Financing.

**DOCUMENTATION PROVIDED:**

- Report of the Project Planning Committee for the Hart House Infrastructure Renewal, dated April 5, 2024.